



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND
POLLUTION PREVENTION

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION DIVISION (7505P)

11/SEPT/2014

MEMORANDUM

Subject: Acute Toxicity Review for EPA File Symbol 10163-GGR

Name of Pesticide Product: Zing!
EPA File Symbol: 10163-GGR
DP Barcode: D419668
Decision No.: 488940
Action Code: R314
PC Codes: 081901 (chlorothalonil), 101702 (zoxamide)

From: Eugenia McAndrew, Biologist
Technical Review Branch
Registration Division (7505P)

E. McAndrew

M. Howard
Lead Toxicologist

To: Marcel Howard, RM Team 22
Fungicide Branch
Registration Division (7505P)

Applicant: Gowan Company
P.O. Box 5569
Yuma, AZ 85366-5569

FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
Zoxamide	6.8
Chlorothalonil	40.0
<u>Other Ingredient(s):</u>	<u>53.2</u>
Total:	100.0%

ACTION REQUESTED: The Risk Manager requests a review of six acute toxicity studies submitted to support registration of EPA File Symbol 10163-GGR.

BACKGROUND: Gowan Company has submitted six acute toxicity studies (MRID Nos. 493385-01 to -06) to support the registration of Zing!, EPA File Symbol 10163-GGR. The TRB Product Chemistry Team must review and accept the basic CSF included in the submission.

GLP: Yes

DEVIATIONS: None

LABELING:

PRODUCT ID #: 010163-00331

PRODUCT NAME: Zing!

PRECAUTIONARY STATEMENTS

SIGNAL WORD: CAUTION

Hazards to Humans and Domestic Animals:

Harmful if swallowed or inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing vapor or spray mist. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. [Wear protective eyewear.]* Wear: Long-sleeved shirt and long pants, socks, shoes, and gloves.

*[Protective eyewear maybe specified, if appropriate.]

First Aid:

If swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything to an unconscious person.

If inhaled:

- Move the person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

DATA EVALUATION RECORD

Product File Symbol: 10163-GGR

Product Name: Zing!

1. DP BARCODE: 419668

2. PC CODES: 081901, 101702

3. CURRENT DATE: September 11, 2014

4. TEST MATERIAL: GWN-10126 (Lot # 12111301-1; EPSL Ref. No. 130612-1R; 41.02% Chlorothalonil Tech (98%) and 6.98% Zoxamide Tech (98%); pH 6.75 (1% w/w solution); density 1.225 g/mL; white liquid suspension; administered as received)

Study/Species/Lab Study # /Date	MRID	Results	Tox Cat	Core Grade
Acute oral toxicity / rat Product Safety Labs Study #37084/January 9, 2014 OCSP 870.1100; OECD 425	49338503	<p>LD₅₀ Females = 3125 mg/kg (95% CI 1750 mg/kg to 5000 mg/kg)</p> <p>8 females were tested at 175 mg/kg (1 animal), 539 mg/kg (1 animal), 1750 mg/kg (3 animals) or 5000 mg/kg (3 animals)</p> <p>Mortality occurred at 5000 mg/kg only: all animals died within 2 days of test substance administration. Prior to death all animals exhibited hypoactivity, reduced fecal volume, irregular respiration, diarrhea and/or soft feces. Gross necropsy revealed discoloration of the lungs, mottled liver, distention of the intestines and/or stomach or discolored intestines and/or stomach filled with liquid.</p> <p>175 mg/kg and 539 mg/kg: all animals survived; clinical signs at 550 mg/kg: soft feces with recovery by day 1; body weight gains; no gross abnormalities at necropsy</p> <p>1750 mg/kg: all animals survived; clinical signs noted: ano-genital</p>	III	A

		<p>staining, reduced fecal volume, soft feces, diarrhea and/or nasal discharge with recovery by day 3; body weight gains; no gross abnormalities at necropsy</p> <p><u>Deviation:</u> One animal was dosed at a slightly lower dose due to a recording error which resulted in a dose volume of 0.44 mL/kg and a dose level of 539 mg/kg (instead of 550 mg/kg). The approximate 95% confidence intervals of 1750 to 5000 remained the same, but the estimated LD₅₀ was re-evaluated to be 3125 mg/kg. This deviation had a minimal impact on the study.</p>		
<p>Acute dermal toxicity / rat Product Safety Labs Study #37085/January 7, 2014 OCSP 870.1200; OECD 402</p>	49338501	<p>LD₅₀ > 5000 mg/kg (both sexes)</p> <p>All animals survived; clinical signs noted: nasal discharge and/or anogenital staining with recovery by day 8; dermal irritation (erythema) at 9 dose sites between days 1 and 7; 1 female lost weight by day 7 but all animals gained weight by day 14; no gross abnormalities at necropsy.</p>	IV	A
<p>Acute inhalation toxicity / rat Product Safety Labs Study #37086/January 30, 2014, 2013 OCSP 870.1300; OECD 403</p>	49338502	<p>LC₅₀ > 2.13 mg/L (males) 0.52 mg/L (females)</p> <p>Two levels tested: 2.13 mg/L (males and females) 0.52 mg/L (females only)</p> <p>2.13 mg/L: MMAD: 3.44 µm, 3.16 µm GSD: 2.91, 3.12</p>	III	A

			<p>0.52 mg/L: MMAD: 3.68, 3.80 GSD: 2.90, 3.05</p> <p><u>0.52 mg/L exposure:</u> 2 females died within 3 days of exposure; toxic signs noted: abnormal respiration, hypoactivity and/or facial staining; clinical signs in survivors: irregular respiration, nasal discharge, ano-genital staining and/or hypoactivity with recovery by day 7; 1 survivor lost weight by day 3 but the 3 survivors gained weight thereafter; gross necropsy of decedents revealed discoloration of the lungs, intestines and/or liver and distention of the stomach and intestines; no gross abnormalities were noted for survivors at necropsy</p> <p><u>2.13 mg/L exposure:</u> 2 females were euthanized for humane reasons on days 2 and 8; 1 male and 2 females died within 2 days of exposure; toxic signs noted: abnormal respiration, hypoactivity, abdominal distention, nasal discharge, ano-genital staining, prone posture and/or ocular discharge. Clinical signs noted in survivors: abnormal respiration, hypoactivity, ano-genital staining, ocular discharge and/or prolapsed penis. Though all symptoms cleared by day 8, a prolapsed penis was still evident for 1 male through day 14. All survivors lost weight by days 1 or 3, all animals gained weight thereafter. Gross necropsy of decedents revealed discoloration of lungs, intestines and/or liver and</p>		
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		distention of stomach and intestines. No gross abnormalities were noted for survivors at necropsy.		
Primary eye irritation / rabbit Product Safety Labs Study #37087/January 20, 2014 OCSPP 870.2400; OECD 405	49338505	3 females tested ocular anesthetic used Corneal opacity was noted in 1 eye at 24 and 48 hrs; positive conjunctival redness was noted in all eyes at 24 and 48 hrs and in 2 eyes at 72 hrs; positive conjunctival chemosis was noted in 1 eye at 1 hr, in all eyes at 24 and 48 hrs and in 1 eye at 72 hrs; no positive scores on day 4 and all eyes were free of irritation on day 7 Note: score of 2 noted for discharge noted in 1 eye at 1 and 48 hrs (not considered a positive effect) MMTS = 13.7 at 48 hrs	III	A
Primary dermal irritation / rabbit Product Safety Labs Study #37088/January 30, 2014 OCSPP 870.2500; OECD 404	49338506	PDI = 0.8 3 females tested Very slight erythema and very slight edema were noted at all sites 30-60 minutes after patch removal. The edema resolved by 24 hrs. At 48 hrs, 1 site had very slight erythema and 2 sites were free of irritation. All sites were free of irritation by 72 hrs.	IV	A
Dermal sensitization /guinea pig Product Safety Labs Study #37089/February 7, 2014 OCSPP 870.2600; OECD 406	49338504	Not a sensitizer Appropriate positive control provided	--	A

**Core Grade Key: A =Acceptable, S = Supplementary, U = Unacceptable, D = Data Gap
W = Waived**